

REVIEWS AND ABSTRACTS.

BESSEY, E. A. *A Text-Book of Mycology*. P. Blakiston's Son and Co. 1935.

In recent years several text-books dealing with the fungi have appeared but they have been either of too advanced a nature or have been too specialised to meet the needs of a junior student. The aim of this book is to provide a text-book of mycology suitable for first year students who have had a course in general botany.

The book covers a wide field, incorporating much recent research, and is a useful addition to the mycological library. Emphasis is laid on the morphological and systematic aspects of the subject and, as the author admits, scant attention is paid to the physiology of fungi. This latter fact will probably be regretted by many teachers of mycology, but in fairness it must be admitted that had the author attempted to include physiological studies the book would probably have become too bulky to serve its purpose as a junior text-book.

Here and there the need for condensation has resulted in somewhat perfunctory treatment. For instance, the section dealing with lichens would be unlikely to give students an adequate knowledge of that interesting and peculiar group of plants. A minor criticism is the author's use of the term disjunction as a synonym for segregation when dealing with nuclear behaviour in the basidiomycetes.

An excellent feature is the bibliography given at the end of each chapter which will enable the better students to pursue their studies further.

M. R. LEVYNS.

VAN LAREN, A. J. *Cactus*. Translated from the Dutch by E. J. Labarre. Arranged and edited by Scott E. Haselton. Cactus and Succulent Society of America. Abbey San Encino Press, Los Angeles, California. 1935.

This book represents a high peak of technical achievement among publications for the intelligent and instructed amateur. No purely scientific botanical book could appear in such handsome yet dignified paper, print and binding, or with such a wealth of admirably painted and reproduced illustrations. To conclude that cactus-collecting is a rich man's hobby in America is probably only one aspect of the truth: but the other implication that monetary support can be found for the publication of books fine in form but partial in scope, whereas treatises of fundamental value languish in unworthy dress, is only too well attested by the long parallel processions down the decades of stately popular works and shabby scientific ones.

But while we may regret the seedy garb in which botanical works so often appear, it would be churlish to begrudge to books of this kind their more seemly attire. The author, illustrators and publishers (though not always the proof-reader) are to be sincerely congratulated on a beautiful production which it is a pleasure to handle and peruse, and which will confirm cactus-lovers in their affections and lure others to join their ranks.

When can we hope for a similar book on the South African succulents?

R. H. COMPTON.

ASHBY, M. The Genus *Hemizygia*, Briquet. Journ. Bot. LXXIII. 1935. 318 and 343.

This genus of the Labiatae stands in a position intermediate between *Orthosiphon* and *Ocimum*. The genus is essentially South African, with its centre of distribution in the Transvaal. It extends beyond into western tropical Africa. The number of species now recognised as belonging to *Hemizygia* is raised to 28. A key is given for their identification. Of the species 15 are now transferred from *Orthosiphon* or *Ocimum*. Three are described as new: *H. Obermeyerac*, Zoutpansberg; *H. rugosifolia*, Pietersburg; and *H. petiolata*, Zoutpansberg.

DYER, R. A. The Seed Germination of certain Species of *Euphorbia*. S. Afr. Journ. Sci. XXXII. 1935. 313.

The germination and seedling characters of four succulent species of *Euphorbia* are described. Germination has a high percentage and is rapid. It is decided that seed and seedling characters are of little value for taxonomic purposes in this genus.

GILLILAND, H. B. A new giant *Lobelia* from Rhodesian Manicaland. Journ. Bot. LXXIII. 1935. 247.

Lobelia Stricklandiae which is found in one locality on the mountains in the eastern part of Rhodesia is described. It is a plant growing 14-20 feet high and occurs in a sheltered kloof. The discovery forms an interesting southward extension of these large montane forms of the genus.

LÉEMANN, A. C. The Blaauwberg in the Northern Transvaal. G. Karsten and H. Schenck: Vegetationsbilder XXIV. 8. 1935. (Text in English and German.)

The Blaauwberg forms a south-western extension of the Zoutpansberg. It rises 3,600 feet above the general level of the plateau, 3,000 feet. The vegetation of the slopes is of the Bushveld type, consisting of savanna passing into woodland. The upper portions extend into the "mist belt," but do not bear forests. There is a rather low open scrub with occasional fig trees. A number of species of *Helichrysum*, also *Erica*, *Stoebe*, and some others occur here. The flora is regarded as a relict one that has escaped destruction by fire to a large extent. There are eleven excellent photographs in illustration.

LÉEMANN, A. C. Vegetationsbilder aus den Magaliesbergen in der Hochebene von Transvaal. G. Karsten and H. Schenck: Vegetationsbilder XX. 3. 1931.

A short description and ten photographs of the vegetation of Wonderboompoort north of Pretoria, dealing especially with the "Wonderboom," *Ficus Pretoriae*.

NORDLICH, T. and WEIMARCK, H. Beiträge zur Kenntniss der Flora von Süd Rhodesia. III. Bot. Notis. 1935. 357.

This part deals with Capparidaceae, Polygalaceae, and Asclepiadaceae. 13 species are described as new and each is illustrated. The novelties are all in the Asclepiadaceae: *Xysmalobium amplifolium*, *X. dilatatum*, *Asclepias*

lilacina, *A. fimbriata*, *A. rhodesica*, *Schizoglossum gracile*, *S. leptoglossum*, *S. rhodesicum*, *S. lanatum*, *S. gigantoglossum*, *Cynanchum papillosum*, *Sisyranthus rhodesicus*, and *Brachystelma hirtellum*. Two species of *Polygala* are reduced to varietal rank.

PHILLIPS, E. P. The genera *Erythroxylo* L. and *Nectaropetalum* Engl. S. Afr. Journ. Sci. XXXII, 1935. 305.

These two genera, which are the representatives of the Erythroxyloaceae in South Africa, have been separated from one another on the numbers of chambers in the ovary and of the styles. These characters are found to be inconstant, and the two genera cannot be maintained as separate. The five South African species are placed in *Erythroxylo*. A key to the species is given.

There is a discussion on the possible lines of evolution of the South African species.

PHILLIPS, E. P. An unrecorded Species of *Gardenia* from the Transvaal. S. Afr. Journ. Sci. XXXII, 1935. 320.

Gardenia spatulifolia Stapf and Hutch. which is found in the northern Transvaal, has been confounded with *G. Thunbergia* L.f. The differences between the two are pointed out. The discovery of this plant in the Transvaal is an extension of the distribution.

PHILLIPS, E.P. Cultivated Native Grasses. Dept. Agric. and For. Sci. Bull. 146. 1935.

This contains descriptions and photographs of grasses that are cultivated at the experimental station at Prinshof, Pretoria. 12 species are included and illustrated with notes added on cultural features. The present is the first of a series to be issued. It is to be hoped that in later parts the reproduction of the photographs be improved. In the current part several have lost very considerably.

RENNIE, J. V. L. On the Flora of a High Mountain in South-West Africa. Trans. Roy. Soc. S. Afr. XXIII. 1935. 259.

The Awas mountains, which lie south of Windhoek, rise to a height of 8,148 feet on the Moltke Blick. At the summits the vegetation consists of small-leaved bushes with grass and forms a decided contrast with the "Thornveld" of the slopes. In this summit vegetation there are a number of species of "Cape" plants. The station in South-West Africa marks a large extension of the known distribution of the plants, which is discussed, and also opens up new suggestions on the past history and migrations of the Cape flora.

R. S. ADAMSON.